

# PUBLIC HEALTH REPORT

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## Erythroblastosis Fetalis Can Be Prevented

AN IMMUNE GLOBULIN, Rh<sub>0</sub> (D) Immune Globulin (Human), is now available which prevents erythroblastosis fetalis.<sup>1</sup> Injected in an Rh negative mother within 72 hours after each delivery of an Rh positive infant, or following a spontaneous or therapeutic abortion, the serum gives the mother passive and transient immunity which prevents the development of active immunity against Rh positive red blood cells. Suppression of active antibodies in the mother protects the infant in the subsequent pregnancy against erythroblastosis fetalis.

The serum may save as many as 500 lives a year in California. In 1964, the most recent year for which data are available, erythroblastosis fetalis caused a total of 454 deaths in California, 6 percent of the state's fetal and 2.5 percent of its neonatal deaths, with a three-to-one ratio of fetal to neonatal deaths.

About 13 percent of all women are Rh negative. Ten percent of these Rh negative women are sensitized in each pregnancy. Based on estimates of women at risk among primigravidas, multiparas and those undergoing miscarriages and therapeutic abortions, the number of Rh negative women in California who annually require protection with immune globulin is approximately 51,000. Once immunized by Rh positive cells, a woman cannot benefit from the serum.

California's physicians have long been concerned with the reduction of mortality from erythroblastosis fetalis. More than two years ago the California Medical Association's Committee on Maternal and Child Care, in conjunction with the Bureau of Maternal and Child Health of the State Department of Public Health undertook a study of mortality from hemolytic diseases of the newborn

[reported in CALIFORNIA MEDICINE, August 1966,<sup>2</sup>] in which general practitioners, obstetricians, pediatricians, anesthesiologists, pathologists, hematologists and public health physicians participated.

Now that an immune globulin has been developed to prevent erythroblastosis fetalis, cooperation between physicians, hospitals, health jurisdictions and agencies concerned with the care of women in their child-bearing years is essential. The first step is identification of the women at risk, and for this reason it is now imperative that Rh blood typing be included as part of every prenatal blood examination. The second step is that physicians keep in mind the possible use of immune globulin Rh<sub>0</sub> (D) when prescribing the treatment of Rh negative women with Rh positive infants.

It is significant that the California Hospital Association legal counsel has advised California hospital administrators to obtain an adequate supply of the immune globulin and to document carefully instances of patient refusal to accept the immunization.

It is expected that schools of medicine and public health and programs of continuing and inservice medical education will include prevention of erythroblastosis fetalis as an aspect of present-day medical practice.

Official and voluntary health and medical agencies may wish to direct a statewide information and education program to the lay public through appropriate media. Women should learn the importance of the Rh factor, the circumstances under which they may be sensitized, and how this can be prevented.

Cooperation of physicians, hospitals, laboratories and a well-informed public in a program to prevent erythroblastosis fetalis will make it possible to reduce infant mortality and morbidity, always a goal of California's medical community.

### REFERENCES

1. For the prevention of Rh isoimmunization, RhoGam, Rh<sub>0</sub> D Immune Globulin (Human), Ortho Diagnostics, Raritan, New Jersey 08869.
2. Siegel, E., Chinnock, R. F., Hyman, C. B., Kushner, J. H., Bates, T., Lewis, A., Gilbert, A., and Corsa, L., Jr.: Hemolytic disease of the newborn—Review of deaths in California, CALIFORNIA MEDICINE, 105:81-88, Aug. 1966.